ABSTRACT

A coding method of spreading spectrum multiple access codes in the area of any wireless communications system that involves code-division-multiple-access (CDMA) and spreading spectrum technology. The method uses two orthogonal, synchronous fading channels to transmit two pairs of multiple access spreading codes respectively. The two pairs of spreading codes oppose each other but also complement each other in the transmission so that their correlation has a property of zero correlation window, i.e. the auto-correlation and cross-correlation functions have no side lobes within the zero correlation window. That means that inter symbol interference (ISI) and MAI will be completely eliminated in the corresponding CDMA and spreading spectrum system, so that makes it possible to build a wireless digital communications system of large RF capacity and solve the more severe contradictions between the resource of frequency efficiency and RF capacity.

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